

CLAIMS

1. A method of allocating Abis interface transmission channels in a packet cellular radio network, comprising:

allocating fixedly a certain number of transmission channels to base-station-specific operations and maintenance signalling and to transceiver-specific telecommunication signalling;

further comprising

allocating dynamically, using in-band signalling, a necessary number of transmission channels to packet data transfer, the amount of packet data varying according to the modulation and coding scheme used on a Um interface.

2. A method as claimed in claim 1, wherein all transmission channels for transferring packet data are allocated entirely dynamically according to the transfer need.

3. A method as claimed in claim 1, wherein at least one transmission channel is continuously kept allocated to each channel codec unit allocated to Um interface packet data transfer.

4. A method as claimed in claim 1, wherein a necessary number of transmission channels is allocated to the uplink and the downlink, unsymmetrically if necessary, i.e. such that the number of transmission channels allocated to different purposes on the uplink and the downlink is different.

5. A method as claimed in claim 1, wherein each Abis interface frame is allocated dynamically according to current data transmission capacity needs of different Um interface connections.

6. A method as claimed in claim 1, wherein one transmission channel for transferring packet data is a master channel comprising information on the number and location of other transmission channels used for transferring packet data, i.e. slave channels.

7. A method as claimed in claim 6, wherein the master channel is allocated by using signalling in the transmission channel reserved for telecommunication signalling.

8. A method as claimed in claim 6, wherein the master channel and the slave channel utilize a different frame structure optimized for both purposes.

9. A network part of a packet cellular radio network, comprising
a base station;
a transceiver implementing a Um interface at the base station;
a channel codec unit at the base station;
a packet control unit communicating with the channel codec unit through an Abis interface;
means for allocating fixedly on the Abis interface a certain number of transmission channels to base-station-specific operations and maintenance signalling and to transceiver-specific telecommunication signalling;
wherein
the packet control unit, using in-band signalling, dynamically allocates on the Abis interface a necessary number of transmission channels to packet data transfer, the amount of packet data varying according to the modulation and coding scheme used on the Um interface.

10. A network part as claimed in claim 9, wherein the packet control unit allocates all transmission channels used for transferring packet data entirely dynamically according to the transfer need.

11. A network part as claimed in claim 9, wherein the packet control unit allocates the transmission channels such that at least one transmission channel is continuously kept allocated to each channel codec unit allocated to Um interface packet data transfer.

12. A network part as claimed in claim 9, wherein the packet control unit allocates the transmission channels such that a necessary number of transmission channels is allocated to the uplink and the downlink, unsymmet-

rically if necessary, i.e. such that the number of transmission channels allocated to different purposes on the uplink and the downlink is different.

13. A network part as claimed in claim 9, wherein the packet control unit allocates each Abis interface frame dynamically according to current data transmission capacity needs of different Um interface connections.

14. A network part as claimed in claim 9, wherein the packet control unit allocates the transmission channels such that one transmission channel for transferring packet data is a master channel comprising information on the number and location of other transmission channels used for transferring packet data, i.e. slave channels.

15. A network part as claimed in claim 14, wherein the packet control unit allocates the master channel by using signalling in the transmission channel reserved for telecommunication signalling.

16. A network part as claimed in claim 14, wherein the packet control unit and the channel codec unit use in the master channel and the slave channel a different frame structure optimized for both purposes.